Sawtooth Science Institute 2007

Idaho State University

IDAHO MUSEUM *of* NATURAL HISTORY

Division of Continuing Education

Welcome to the Sawtooth Science Institute

From the Director

From its inception in 1990, the Sawtooth Science Institute (SSI) has continually developed new programs to serve our mission of fostering a reconnection of our nature-starved populace to the natural world. SSI continues to find innovative ways to bridge these gaps wherever we can find them. For some time, we have followed and participated in several successful national programs, attended many meetings, conferences, and projects designed to find new ways to foster conservation of our natural heritage.

To serve that goal, in March of 2007, we'll offer a series of naturalist lectures and discussions designed to bring more scientific knowledge to the region and in particular to Central Idaho. Because Idaho has some of the last remaining large tracts of roadless areas (outside Alaska) in the country, conserving the "heart of Idaho" is critical to efforts and initiatives in the entire Rocky Mountain region. It is my fondest hope that this is just the beginning of continuing expansion of SSI and natural heritage studies.

I am also pleased to announce that in May 2006 Idaho State University signed an agreement with the College of Southern Idaho to increase academic and enrichment programs in Blaine County. We at ISU are grateful to CSI and the Blaine County School District for allowing us to join them in jointly serving the needs of the region.

Photo: Bob Gertschen

With this new endeavor, ISU gave me the honor of a new and expanded position as director for that outreach center. I am very excited about this new role and am working toward learning how ISU can better serve the needs of the region. We are currently focusing on upper division education courses, teacher certification, health profession education, and human resource development and training. We've opened an office at the Blaine County Community Campus, 1050 Fox Acres Rd., Suite 403, in Hailey.

I am always available by telephone: 208-788-9686; 578-3643 (Hailey office); and 309-0901 (cell). The mailing address for SSI remains the same: P.O. Box 2167, Sun Valley, Idaho 83353. And, of course, I will continue to adopt and develop new programs under the SSI wing.

Chris

Christine Gertschen
Founder and Director
Sawtooth Science Institute

Cover photo: David Mead / Catalog design by David Mead

The Sawtooth Science Institute is an outreach field study center of Idaho State University's Division of Continuing Education and the Idaho Museum of Natural History.

SSI Goals

Serving the needs of all students of natural history: teachers, community groups and other lifelong learners

Providing site-specific natural history information, materials, and resources

Aiding in the integration of locally relevant cultural and natural history across disciplines in the K - 12 classroom

Facilitating a re-connection with the natural environment and our unique intermountain heritage

Our workshops and field studies take place in many spectacular locations. Generally we begin with classroom activities, multi-media presentations and discussions. Students are then prepared for the field investigations to follow. We spend as much time as possible in the outdoors. No previous experience is required, but you will need to be comfortable in our outdoor classroom.

Our workshops are designed to address a diverse audience. Please note that several of the workshops require considerable hiking, oftentimes at elevations of 6000 feet or more. If you're in doubt, please ask — we are happy to help!

Please come prepared for all kinds of weather – our Idaho weather is predictably unpredictable. Appropriate hiking shoes, warm layers and rain gear are important. Your safety is very important to us and we use all discretion in our field work. Whenever possible, we'll provide transportation but it may be necessary to carpool to our study sites.

Register today!

After you have registered, we will provide information about the workshop times, necessary items, extra expenses, local lodging and nearby campgrounds. Each workshop accepts a limited number of participants. Detailed registration information is in the back of this catalog.

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Photo: Chris Gertschen

2007 Workshop Schedule at a Glance

Except as noted, all workshops are two days and one credit.

Spring

Jan 13-14	Craters of the Moon Winter Ecology	Craters
March 7- May 2	Idaho's Wild Heart: Central Idaho Natural History	Hailey
May 4-5	Craters of the Moon Natural History for Educators	Craters

Summer

June 12-13	Silver Creek Birding and Botany	Hailey
June 14-15	Rocks and Ice	Hailey/Sun Valley
June 19-20	Swamp Creatures and Desert Wetlands	Twin Falls
June 21-22	Idaho Issues: Water!	Burley
June 26-27	Teton River Birding and Botany	Driggs
June 28-29	Crafting the Lewis and Clark Adventure	Wood River Valley
July 9-10	On the Trail with Lewis & Clark – I	Salmon
July 11-12	On the Trail with Lewis & Clark - II	Lost Trail Pass
July 13-14	High Country Plants	Sun Valley
July 16-17	Rocky Mountain Adventure I: Wetlands	Idaho Falls
July 18-19	Rocky Mountain Adventure II: Desert	Idaho Falls
July 19-20	Idaho Butterflies and Wildflowers	Hailey/Sun Valley
July 23-24	Rocky Mountain Adventure III: Mountains	Idaho Falls
July 24-25	Massacre Rocks Natural History	Massacre Rocks S.P.
July 25-26	Rocky Mountain Adventure IV: Rivers and Streams	Idaho Falls
July 30-31	Rocky Mountain Adventure V: Water Resources	Idaho Falls
Aug 1-2	Rocky Mountain Adventure VI: Energy Sources	Idaho Falls
Aug 7-8	Central Idaho History Adventure – I	Challis
Aug 9-10	Central Idaho History Adventure – II	Smiley Creek
Aug 10-11	Craters of the Moon Geology	Craters
Aug 14-15	Henry's Fork Headwaters Birding and Botany	Island Park
Aug 16-17	Stream Ecology for Flyfishermen & Women	Wood River Valley

Photo: Roger Boe

Photo: Timothy Frazier

January 13-14
CRATERS OF THE MOON WINTER ECOLOGY WORKSHOP

Meets: Craters of the Moon National Monument
Instructors: Doug Owen (NPS), BLM, and Other Staff
Limit: 20

Craters of the Moon National Monument is spectacular any time of year, but the stark contrast between the black basalt and white snow makes it unique among other winter activity areas in Idaho. The Monument has been recognized by the Winter Wildlands Alliance as the first Snow School for Idaho, and is now ready to invite you to snowshoe (we'll provide the snowshoes!) in the Park. This workshop provides educator training about the wonderful world of winter; the different kinds of "Nivean" or snow-world environments; the characteristics and properties of snow; and the processes that act on snow. We'll also discuss animal and plant coping mechanisms, strategies, behaviors, and survival adaptations to winter. Winter health and safety issues, such as avalanches and hypothermia, are also presented. We'll demonstrate a variety of activities, games, and experiments that can be used with students to teach about winter ecology. Tracks and trails are usually abundant and participants will learn to identify the animals that made them.

PLEASE NOTE: We will cover approximately 3-5 miles on snowshoes.

Workshop fee: $50	Recording fee: $50	
EDUC 498P	Index number: 210031	Section: 31
BIOL 498P	Index number: 210011	Section: 31

Photo: Chris Gertschen

Photo: Ray Laible

Photo: Ruth Moorhead

Photo: Jamie Bennett

March 7 - May 2 (Thursdays, 6-8:00 pm)
IDAHO'S WILD HEART: CENTRAL IDAHO NATURAL HISTORY
Meets: Blaine County Community Campus
No limit

This is an evening lecture series that meets weekly for two hours each week. Those who are not seeking credit may attend for the "per lecture" fee of $15 per week or for the entire series for $75. Credit seekers must pay the entire series workshop fee, attend all lectures, prepare a short assignment, and pay the recording fee to be eligible for one credit.

We'll focus our studies on the Central Idaho region, beginning with an overview of our geology and soils, habitat, plants and animals, and culminate in land use issues and conservation science. We'll touch on geography (through the use of mapping techniques), biology, ecology, and zoology using some of the latest methods and tools. As far as we know, this is a course that has never been done before, but the material is essential for everyone who is interested in learning about this spectacular "wild heart" of our state. This is a perfect way to prepare for summer field courses. Don't miss this crash course in conservation science!

Workshop fee: $75 for series; $15 per lecture Recording fee: $50 for series
EDUC 498P Index number: 210290 Section: 32
BIOL 498P Index number: 210264

"Excellent teaching and preparation by Doug Owen. Plants and animals helped balance the geology. The Sawooth Science Institute really does a great job!"

- Craters of the Moon Natural History workshop participant

May 4-5
CRATERS OF THE MOON NATURAL HISTORY FOR EDUCATORS
Meets: Craters of the Moon National Monument
Instructors: Doug Owen, NPS, BLM, and ID Fish and Game staff
Limit: 15

This workshop is designed primarily for educators who are preparing to bring others to the Monument for a field trip. Through multi-media presentations (powerpoint and slide shows, video, and computer animations), several scientists will present the natural history of the Monument. There will be field trips on both Friday and Saturday visiting a variety of interesting sites and the processes that made them what they are. Participants will learn about the geology, plants, animals, and ecology of the Monument up close and personal. Warning: Instructor Doug Owen's enthusiasm is contagious!

Workshop fee: $50 Recording fee: $50
EDUC 498P Index number: 210033 Section: 33
BIOL 498P Index number: 210023

Photo: Roger Boe

Photo: Dick Anderson

Photo: Scott Earle

Photo: Chris Gertschen

Photo: Chris Gertschen

Photo: Ruth Moorhead

June 12-13
SILVER CREEK BIRDING AND BOTANY

Meets: Bellevue
Instructors: David Mead, Ruth Moorhead
Limit: 10

Few birding areas compare with the richness of the Nature Conservancy's Silver Creek Preserve, and there's no better way to see this area than by canoe. Being on the water is a wonderful way to see birds that you don't typically see on the shore. Birds also allow you to get much closer when you're on the water. You will learn beginning birding techniques and the basics of canoeing in this workshop. We'll have a morning classroom session, followed by a day and half of birding by canoe on Silver Creek. The paddling will be easy and relaxing.

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310332 Section: 34
BIOL 498P Index number: 310325

Photo: Ruth Moorhead

June 14-15
ROCKS AND ICE: CENTRAL IDAHO GEOLOGY

Meets: Ketchum
Instructor: Glenn Thackray
Limit: 15

The beauty of the Central Idaho landscape is the result of a rich and varied geologic history, with the finishing touches provided by Pleistocene glaciers. Because glaciation was so prevalent in Central Idaho, we'll have a perfect outdoor classroom for studying glacial processes, emphasizing those that have produced the spectacular glacial landforms of the Sawtooth Mountains and the Wood River Valley.

The entire course takes place in the field visiting examples of Central Idaho geology on June 14-15. If you lack prior experience in geology, you are required to review a powerpoint presentation designed to provide a crash course in Idaho geology. Participants must be prepared for moderate to more difficult hiking (approximately 5 miles each day).

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310341 Section: 35
GEOL 498P Index number: 310083

"I plan to take more courses...they help me understand the relationships between Idaho's natural history and the people who have lived here."

- Rocks & Ice workshop participant

Photo: Ray Laible

Photo: Ray Laible

Photo: Terry Maret

Photo: Ruth Moorhead

June 19 - 20
SWAMP CREATURES AND DESERT WETLANDS

Instructor: Ross Spackman
Meets: CSI Twin Falls
Limit: 15

If you were one of those kids who couldn't be kept from the water's edge or want to learn how to make the most of that tendency in other kids, this is the workshop for you! Come learn how wetlands function to purify water and provide homes to many creatures. You'll discover what macroinvertebrates are and learn how to assess the environmental quality of waterways. We'll emphasize hands-on experiences, construct and install duck nesting boxes and in general "muck" around in these rich and varied ecosystems within the desert environment. Bring wading shoes or boots and sunscreen. We'll be outside about half of the class time.

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 356004 Section: 36
BIOL 498P Index number: 356002

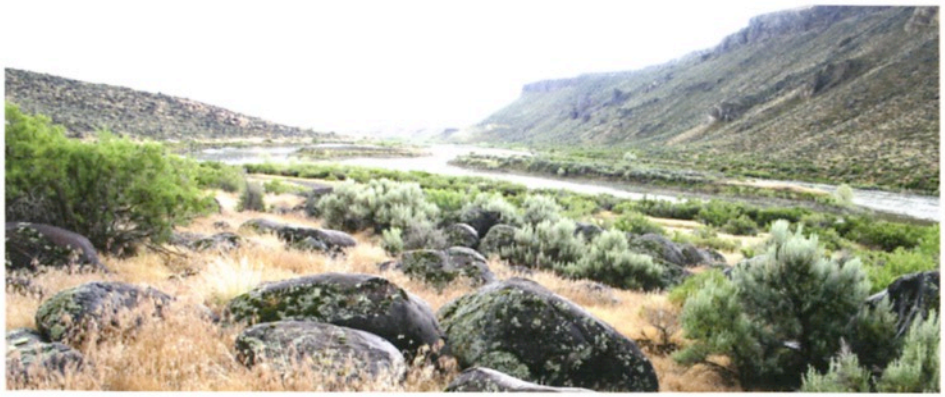

Photo: Ruth Moorhead

June 21 - 22
IDAHO ISSUES: WATER!

Meets: CSI Burley Campus
Instructor: Ross Spackman
Limit: 15

Idaho, the Gem State, is a treasure replete with natural resources that some people feel are in peril. This class will investigate the most critical issue for the state of Idaho: Water! Topics include salmon recovery, water rights, hydrology, and water quality.

One day will be a field trip to the Idaho National Lab where we will learn about environmental remediation and aquifer protection along with nuclear power production. Bring a lunch or money to eat at the cafeteria.

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310572 Section: 37
BIOL 498P Index number: 310542

Photo: Ross Spackman

Photo: David Mead

Photo: Ray Laible

Photo: Chris Gertschen

Photo: Chris Gertschen

June 26-27
TETON RIVER BIRDING AND BOTANY

Meets: Driggs
Instructors: David Mead, Ruth Moorhead
Limit: 10

This beautiful river flowing through the Teton Valley is an easy river for beginning canoeists. The Teton is a small meandering stream; with every turn of the river revealing fantastic views of the Grand Teton Range.

Running primarily through willow stands and cottonwoods, and occasionally opening up to sagebrush hills and fields makes for wonderful opportunities to see a great diversity of plants and birds. You bring the binoculars – we'll provide the canoes and the birds!

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310541 Section: 38
BIOL 498P Index number: 310497

Photo: David Mead

June 28-29
CRAFTING THE LEWIS & CLARK EXPERIENCE

Meets: Wood River Valley
Instructors: Ralph Harris, John Fisher
Limit: 15

Ralph Harris has always taken the hands-on approach to learning about Lewis and Clark, so who better to teach the same method to you? He is joined by John Fisher who has an entire trailer full of Lewis and Clark gear that he'll demonstrate. The Lewis and Clark story has many, many interesting aspects associated with it and there are countless resources available to those with the inspiration to get involved.

This workshop and field study will involve the examination and development of various tools, clothing, and equipment that the Lewis and Clark expedition had to create for survival on their transcontinental trek. If you are interested in a hands-on approach or in actively creating your own traveling trunk from a variety of available supplies, this is the workshop for you!

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310033 Section: 39
BIOL 498P Index number: 310001

"Everything was great . . . I loved the cooking and firemaking and the outdoor sessions!"

- Crafting the Lewis & Clark Experience workshop participant

Photo: Steve Russell

Photo: Steve Russell

Photo: Steve Russell

Photo: Roger Rosentretter

Photo: Scott Earle

July 9-12
ON THE TRAIL WITH LEWIS & CLARK
Sessions I and II

Instructor: Steve F. Russell
Meets: Salmon (session I) and Lost Trail Pass (session II)
Limit: 15

The recent resurgence of interest in the Lewis and Clark exploration of 1803-1806 has raised many concerns about how best to preserve this most interesting part of our Idaho heritage. This class features authentic travel along their exact route and visits to the very campsites that L&C used nearly 200 years ago. We'll meet in Salmon and begin our exploration from there. We'll then "proceed on" to the Lemhi pass and follow much of the same route that Lewis and Clark used nearly 200 years ago.

Some areas have changed greatly and others have changed little since that time, and there are many issues that we will discuss along the way. We will watch for the plants and animals reported in Lewis and Clark's journals. We'll camp each night in campgrounds along the route and conclude our tour in the Bitterroot Mountains at Powell. Each session is one credit; you may elect to take Session I, Session II, or both.

Session I

Workshop fee: $70	Recording fee: $50	
EDUC 498P	Index number: 310401	Section: 41
BIOL 498P	Index number: 310385	

Session II

Workshop fee: $70	Recording fee: $50	
EDUC 498P	Index number: 310045	Section: 42
BIOL 498P	Index number: 310003	

July 13-14
HIGH COUNTRY PLANTS

Meets: Ketchum
Instructors: Roger Rosentreter, Ann DeBolt
Limit: 15

Join us in July for a spectacular wildflower show in the high country of south-central Idaho. Roger and Ann will share with you their stories about the common wildflowers and trees found along the mountain trails near Sun Valley. The ecological functions, adaptations, wildlife values, and human uses of these plants will be emphasized to familiarize students with the species' role in the ecosystem. PLEASE NOTE: We will spend both days hiking beautiful mountain trails (3 to 5 miles in mountainous terrain) that provide access to the area's fabulous wildflower displays.

Workshop fee: $70	Recording fee: $50	
EDUC 498P	Index number: 310380	Section: 43
BIOL 498P	Index number: 310013	

Photo: Roger Rosentretter

Photo: Ray Laible

Photo: Ray Laible

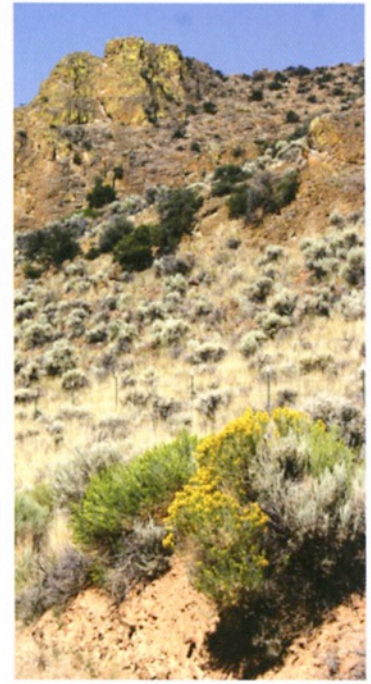

Photo: Ruth Moorhead

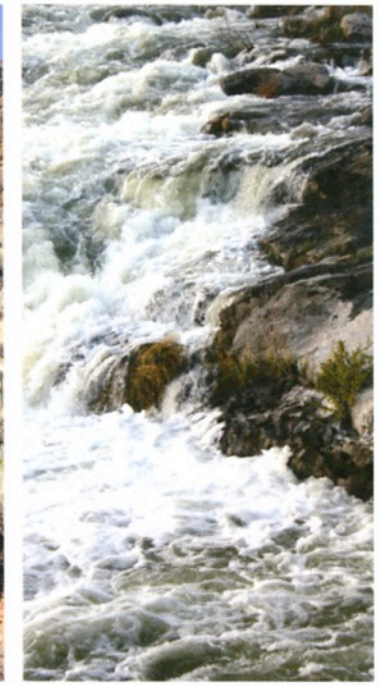

Photo: Ruth Moorhead

Photo: David Mead

July - August
ROCKY MOUNTAIN ADVENTURE
July 16-17, Session I - Wetlands and Marsh
July 18-19, Session II - Deserts
July 23-24, Session III - Mountains
July 25-26, Session IV - Rivers and Streams
July 30-31, Session V - Water Resources
August 1-2, Session VI - Energy Sources
Meets: Idaho Falls at the Museum of Idaho – 8:00 AM
Instructors: K.C. Jones, Alana Jensen, Dave Pennock
Limit: 25

The landscape surrounding Idaho Falls is unsurpassed in all of North America. Known for its diversity, the city is bordered on the west by the stark, barren lava flows and sagebrush of the Snake River Plain. To the east, the rugged Teton Range dominates the landscape, while on the north lies the spectacular Yellowstone Plateau. It would be difficult to find a more attractive landscape for the study of science! Join us for any or all of six learning opportunities in this spectacular and unique natural environment as we visit and study marsh and wetlands (Session I), desert (Session II), mountain (Session III) and rivers and streams (Session IV) communities. Session V will focus on water issues in Idaho particularly the Snake River Plain Aquifer. Session VI will focus on energy sources including wind, solar, nuclear, coal-fired, and hydropower. All the courses will include chances to observe and study natural history and will provide a wealth of field activities that can be adapted to any grade level. Try your hand at journaling exemplified by Bernd Heinrich, Hannah Hinchman, the Corps of Discovery and others. We'll weave English, history, sociology, math, and art throughout the courses. We will be hiking one-half to two miles each day; you will need to be at least moderately fit. Each session is one credit.

Class fees: $75 per session Credit fees: $50 per session

Class fees for the River Session on July 25th - 26th will be $125.00 and will include a float trip down the Snake River above the Palisades Reservoir.

Session I – EDUC 498P	Index number: 352011	Section: 44
Session I – BIOL 498P	Index number: 352003	
Session II – EDUC 498P	Index number: 352012	Section: 45
Session II – BIOL 498P	Index number: 352004	
Session III – EDUC 498P	Index number: 310056	Section: 47
Session III – BIOL 498P	Index number: 352006	
Session IV – EDUC 498P	Index number: 310066	Section: 49
Session IV – BIOL 498P	Index number: 352007	
Session V – EDUC 498P	Index number: 310075	Section: 50
Session V – BIOL 498P	Index number: 352008	
Session VI – EDUC 498P	Index number: 310080	Section: 51
Session VI – BIOL 498P	Index number: 352009	

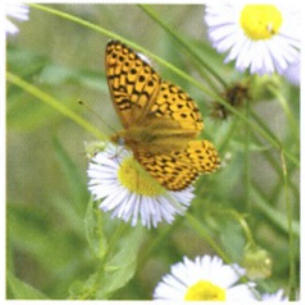

Photo: Scott Earle

Photo: Chris Gertschen

Photo: Massacre Rocks S.P.

Photo: Massacre Rocks S.P.

July 19-20
IDAHO BUTTERFLIES AND WILDFLOWERS

Meets: Hailey
Instructors: Ray and Edna Vizgirdas
Limit: 15

This 2-day workshop will concentrate on sharpening your skills in butterfly-finding, identification, and observation. We'll also highlight the important pollination service these animals provide to many species of plants. The classroom portion will consist of an overview of butterfly life history and the basics in plant pollination ecology.

Then, we take to the field for an opportunity to encounter and identify an array of species "on the wing" in high summer, and we'll net and release butterflies along the way. We will also take the time to identify many of the plants butterflies utilize for their eggs and larvae and search for signs of usage. Interestingly, approximately 88% of the species of butterflies that can occur in Idaho are found within the Sawtooth National Recreation Area. Some of the species we hope to see include pine whites, Parnassians, swallowtails, hairstreaks, coppers, blues, tortoiseshells, arctics, alpines, and fritillaries.

Class fees: $70 — Recording fee: $50
EDUC 498P — Index number: 310053 — Section number: 46
BIOL 498P — Index number: 310016

"I loved the hands-on nature of their presentations and accessibility to the instructors!"

- Rocky Mountain Adventure workshop participant

July 24-25
MASSACRE ROCKS NATURAL HISTORY

Meets: Massacre Rocks State Park
Instructor: Kevin Lynott
Limit: 15

Oregon Trail emigrants referred to the Massacre Rocks area as "Gate of Death" and "Devil's Gate", but modern-day travelers use terms like beautiful, serene, and restful to describe the park. The park, beside the lovely Snake River, is rich in Oregon Trail, geological, and natural histories. This unique state park offers opportunities for study that are known by few tourists or Idahoans for that matter. The Massacre Rocks area is particularly rich in history. Pioneers used this area, specifically what is now referred to as 'Register Rock' as a rest stop for years. Many emigrant names are inscribed on the large rock, which is now protected by a weather shelter. Park ranger, Kevin Lynott, will introduce you to the natural and cultural wonders of this little-known park.

Workshop fee: $50 — Recording fee: $50
EDUC 498P — Index number: 310064 — Section: 48
BIOL 498P — Index number: 310018

Photo: Massacre Rocks S.P.

Photo: Tom Blanchard

Photo: Ruth Moorhead

Photo: Roger Boe

Photo: Roger Boe

Photo: Ruth Moorhead

August 7-10
CENTRAL IDAHO HISTORY ADVENTURE
Sessions I and II
Meets: Challis and Ketchum
Instructor: Tom Blanchard
Limit: 15

Take a step back in time by exploring old mining haunts, the rocks, people, and stories that gave this region its proud spirit and prosperity - and problems. We will visit old mine sites and discuss the problem of abandoned mines. Watch the geography and human story change as we migrate from Challis to Galena (Session I) and Ketchum to Bellevue (Session II). We'll visit the ghost towns of Bullion, Custer, and Bayhorse. We'll make stops at the limekilns of Greenhorn, the tiny town of Triumph, and the dredge at Yankee Fork. We will observe superfund sites, and discuss the problems of mining today, including exploration, permitting, closure and bonding issues.

Take both sessions for two credits or Session I may be taken on its own for one credit.

Session I

Workshop fee: $70	Recording fee: $50	
EDUC 498P	Index number: 310406	Section: 52
GEOL 498P	Index number: 310671	

Session II

Workshop fee: $70	Recording fee: $50	
EDUC 498P	Index number: 310426	Section: 53
GEOL 498P	Index number: 310672	

August 10-11
CRATERS OF THE MOON GEOLOGY SEMINAR
Meets: Craters of the Moon National Monument
Instructor: Doug Owen
Limit: 15

This in depth seminar instructed by both Park Service and Bureau of Land Management geologists will examine the geologic history of the Monument and the surrounding region. Participants will be introduced to the broad spectrum of hypotheses that attempt to explain the origin of the Snake River Plain and the Yellowstone volcanic system.

Learn to recognize a multitude of volcanic features and how they form. Learn what could explain the varied chemistries found in the Craters of the Moon rocks. Find out what geologic processes remain at work in the Monument. Approximately half of the time will be spent in the field where geology is best studied.

Workshop fee: $50	Recording fee: $50	
EDUC 498P	Index number: 310082	Section: 54
GEOL 498P	Index number: 310089	

Photo: Roger Boe

Photo: Ray Laible

Photo: Ray Laible

Photo: Terry Maret

Photo: Terry Maret

Aug 14-15
HEADWATERS OF THE HENRY'S FORK BIRDING AND BOTANY

Meets: Island Park
Instructors: David Mead, Ruth Moorhead
Limit: 10

The scenic Henry's Fork of the Snake River is known by fisherpeople everywhere. But Henry's Fork and Island Park are also favorite destinations for bird watchers and plant enthusiasts. Some sections of the river are ideally suited for a canoe trip; and of course, birding and botany by canoe is the very best way to get up close and personal!

Birds are the most visible, colorful, and vocal creatures of all the animal kingdom and wildflowers hold that distinction in the plant kingdom. Scientists study birds and plants to determine the health of the environment. Learn how bird and plant studies lend themselves to nature studies of all kinds.

We'll cover beginning birding and botany techniques as well the basics of canoeing before venturing out. Prior canoeing experience would be helpful, but not necessary.

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310629 Section: 55
BIOL 498P Index number: 310578

"The best thing was the friendly people, the knowledgeable teachers, the moose, the blue heron, the sandhill cranes, the pelicans, the hawks and the bald eagle!"

- Birding & Botany workshop participant

August 16-17
STREAM ECOLOGY FOR FLYFISHERMEN AND WOMEN

Meets: Ketchum
Instructors: Terry Maret, Dorene MacCoy
Limit: 15

Have you been wondering about interactions of stream animals and their habitat? Fishermen and women of all levels can enhance their fishing experiences with more knowledge of how the system works. We'll talk (on the river of course!) about the lifestyles of the invertebrates who make their homes in aquatic settings, what the conditions are that make for the best fishing opportunities, and how one can be a better fisherman. Don't miss this two-day river exploration!

Workshop fee: $70 Recording fee: $50
EDUC 498P Index number: 310319 Section: 56
BIOL 498P Index number: 310027

Photo: Terry Maret

Instructors and SSI Staff

Photo: Chris Gertschen

Photo: Terry Maret

Tom Blanchard, M.A. is a historian, former Blaine County commissioner, scholar and speaker with particular expertise in the history of Central Idaho.

Ann DeBolt, M.S., is a botanist at the U.S. Forest Service's Rocky Mountain Research Station in Boise and an active Idaho Native Plant Society member.

John Fisher is a retired high school teacher who has traveled extensively. He has presented at hundreds of educational conferences on his travels and on Lewis and Clark. His collection of authentic Lewis and Clark trunks is awe-inspiring indeed!

Christine Gertschen, M.S. received an Idaho teaching certificate, is founder and director of Sawtooth Science Institute, and director of the Blaine County ISU Center.

Ralph Harris is an artist and illustrator with many years of teaching experience. His passion for Lewis and Clark has led him to travel the entire trail and to acquire authentic clothing and equipment used by these famous explorers.

Alana Jensen is the environmental educator for the Environmental Surveillance, Education and Research Program, under contract with the Department of Energy – Idaho Operations Office. She is a certified environmental educator with the Utah Society of Environmental Educators.

K.C. Jones has taught environmental and field science for 28 years. He is passionate about developing outdoor activities to help students of all ages and of all subjects to actually "see nature".

Dorene MacCoy is a biologist with the Water Resources Division of the U.S. Geological Survey in Boise working on several stream projects.

Terry Maret is a biologist with the Water Resources Division of the U.S. Geological Survey in Boise. He has been involved in biomonitoring, water quality, and habitat studies and is currently working on an intensive study of the upper Salmon River Basin.

David Mead is the exhibits manager for the Idaho Museum of Natural History, graphics designer responsible for this catalog's design, and experienced birder.

Instructors and SSI Staff

Ruth Moorhead is past-president of the Pocatello chapter of the Idaho Native Plant Society, has taught bird identification courses since 1982 and leads wildflower outings at any opportunity.

Doug Owen received degrees in geology and education from Kent State, taught junior high science, was a geologist with the U.S. Geological Survey, and currently serves as lead interpreter and park geologist at Craters of the Moon National Monument and Preserve.

David Pennock is director of the Museum of Idaho in Idaho Falls.

Roger Rosentreter, Ph.D., is state botanist with the Bureau of Land Management in Boise and an adjunct professor at Idaho State University and Boise State University.

Steve F. Russell, Ph.D., a recognized Lewis and Clark Trail expert, literally grew up on the trail at Powell and Weippe and is the author of several books on the Trail. He is associate professor of electrical and computer engineering at Iowa State. He is past president and currently serves on the board of the Nez Perce National Historic Trail Foundation.

Ross Spackman, Ph.D., is a professor of water resource management at the College of Southern Idaho. He received his doctorate in soil science, with an emphasis on water quality research.

Glenn Thackray, Ph.D., is a professor of geology at Idaho State University and has conducted research on the geologic and glacial history of Idaho, the Pacific Northwest, and New Zealand.

Edna Rey-Vizgirdas, M.S., is a botanist with the USDA Forest Service and is primarily responsible for rare and endangered plants on the Boise National Forest. She illustrated a recently released Useful Plants of Idaho authored by her husband, Ray.

Ray Vizgirdas is a biologist with the U.S. fish and Wildlife Service in Boise with 20 years of practical experience in a variety of environmental disciplines including botany, zoology, fisheries biology, ecology, conservation biology, landscape ecology and land-use planning.

Photo: Chris Gertschen

Registration information

To Register:
Idaho State University handles registration for all workshops. You must fully register and pay your fees prior to the beginning of the workshop. After registering, we will send you a packet of information about your course so it is important that you **REGISTER EARLY!**

You will not be able to register on site. Please note that you will be dropped from the class if your fees are not paid the week prior to the beginning of the course. You will be asked to leave if you are not fully registered and paid.

If you have web access, visit the SSI web site at: **http://imnh.isu.edu/ssi** and click on the registration link. The web site contains step-by-step instructions on how to register. (Choose the second option: "Other ISU workshops, short courses, conferences.") You will need to enter the section and index number listed below each workshop description. They are cross-listed, so if the education section is full, you may want to try the biology or geology sections. The courses meet requirements for teacher re-certification.

If you do not have web access or have any trouble registering for a course, you may register on the telephone by calling (208) 282-4545. You may also call SSI at (208) 788-9686 and ISU registration forms will be sent to you. Following submission of the registration form, you will receive a course syllabus (that will contain information about lodging and camping, a list of items to bring, a schedule of meeting times and places, suggested references, etc.) If you need more information, please contact Chris Gertschen at (208) 788-9686.

Workshop Fees:
Our courses are reduced fee courses and so other reductions are not possible. Each course has a "workshop or class fee" that is intended to cover all costs associated with a course. Everyone who attends must pay the workshop or class fee. Those wishing to receive credit for the course MUST pay the credit or recording fee as noted below.

Credit / Recording Fees:
All credit/recording fees are in addition to the workshop fee noted above. Payment of an additional $50 per credit hour recording fee is assessed for those seeking ISU credit. For more fee information see: **http://www.isu.edu/departments/summer/a_c_tuifees.html.**

Photo: David Mea

Please fill out this form and mail it with your registration and payment to:
921 S. 8th Ave., Stop 8015, Pocatello, ID 83209-8015

IDAHO STATE UNIVERSITY

Professional Development/Short Course Form

Intermountain Center for Educational Effectiveness
Academic Support & University Summer Programs
Continuing Education

PERSONAL INFORMATION

SS#: _____

Name: _____

Address: _____

City: _____ State: _____

ZIP: _____

Phone Number: _____

Birth Date: _____ O Male O Female

DEGREE INFORMATION

High School: _____

HS State: _____ HS Grad Date: _____

College Degree: _____

Date Received: _____ Class Level: _____

Institution: _____ State: _____

SEMESTER	INDEX	DEPT	COURSE #	COURSE TITLE	CR	FEE

O CHECK # _____ O VISA O MASTERCARD

Credit Card Number: _____ Expiration Date: _____

Name on Credit Card: _____ Card Signature: _____

IDAHO TEACHER/PROFESSIONAL DEVELOPMENT RE-CERTIFICATION ONLY

(Form will not be processed without completing this information)

O I understand that 597 courses do not count toward a graduate degree.

O I am an Idaho public school teacher or other professional employee of an Idaho school district.

School district employed or contracted by: _____

Note: one official transcript will be provided to the Idaho State Board at no charge. Print and mail form at:
http://www.isu.edu/areg/forms/Transcript-Req.pdf

I certify that the above information is correct: _X_____ _____
Signature Required Date

Official transcripts can be requested at **www.isu.edu/areg/trans.shtml**

FOR OFFICE USE ONLY

Amount Received: _____ Received by: _____ Date: _____

Processed By: _____ Processed Date: _____

Photo: Scott Earle

Registration information

Grading / Transcripts:

Credit-seeking students are required to submit a short assignment or to take a short test. We will provide information about the assignment or test in the syllabus and at the workshop. Grades for the three sessions: spring, summer, early fall are generally posted in May, early September, and late September respectively. You may order transcripts from ISU after those dates. Call 282-3336 to request a transcript. Note: Grades are not automatically sent to you. For those with a September 1 deadline, SSI can prepare an acknowledgement of your successful completion of the course – please ask.

Cancellation Policy:

Cancellation and payment policies are established by Idaho State University and are online: http://www.isu.edu/departments/summer/a_c_tuifees.html. SSI can only refund the workshops fee portion and uses the following criteria for refunds: Cancellations received 2 weeks prior to the first day of a workshop are refundable. Cancellations received 1 week prior to the first day of a workshop are subject to a fee. Cancellations received less than one week prior will not be refunded. Recording fees are not refundable.

Stipends:

The Idaho Environmental Education Association may have stipends available. Check the IdEEA website at: http://idahoee.org – or contact executive director, Amy Pike at 232-5674, P.O. Box 791, Lava Hot Springs, ID 83246 or email: amy@idahoee.org, or any IdEEA board member. The Idaho Science Teachers Association also may have stipends available. Check their website at: http://www.stoller-eser.com/ista/index.htm.

Other Educational Opportunities:

Other courses at the ISU Blaine County Center are listed at: http://classes.isu.edu/spring/HAI.shtml or for courses after May, 2007: http://classes.isu.edu/summer/HAI.shtml. Idaho State University / Twin Falls also offers live and distance learning courses: http://classes.isu.edu/spring/.

The College of Southern Idaho offers a great diversity of courses in Hailey at the Blaine County Community Campus and in Twin Falls. SSI students might be interested in their "Summer Spanish Language Institute," a one-week intensive seminar which immerses students in Spanish language and culture. Please call 788-2033 or visit: http://www.csi.edu/blaine.

Photo: Scott Earle

Sawtooth Science Institute 2007

Sawtooth Science Institute
C/O Division of Continuing Education
Idaho State University
921 S. 8th Avenue, Stop 8062
Pocatello, ID 83209-8062

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Visit our website at http://imnh.isu.edu/ssi or call (208)788-9686